

**APPENDIX TO**

**BUFFERS AND OTHER APPROACHES  
TO MINIMIZING OFF-TARGET DRIFT**

- **Table 1**
- **Table 2**
- **State Statutes**

**TABLE 1**

Twenty products were selected based on acute toxicity to mammals or fish, a past drift consent agreement, groundwater concerns, agricultural sales or aerial use in Maine

Seven products have specified buffers for aerial spraying on their labels. Five were for protection of water ranging from 50 feet to 250 feet. With two other products, Monitor 4L and Poast Plus (herbicide), Monitor 4L has a 150-foot buffer from dwellings or unprotected persons, and Poast Plus has a 200-foot buffer from sensitive species (*see Table 1*).

| <b>TABLE 1. EXISTING NUMERICAL AERIAL BUFFERS ON PRODUCTS REVIEWED</b> |                             |  |
|--|-----------------------------|--|
| <b>Product</b>   | <b>Type of Product</b>      | <b>Buffer</b>  |
| Dimilin (diflubenzuron)  | Insect growth regulator     | Water 150 ft; Maine-specific: browntail moth for coast is 250 ft |
| Echo 90DF (chlorothalonil):  | Fungicide                   | Water: 150 ft  |
| Guthion 50 WP (azinphosmethyl)   | Organophosphate Insecticide | Water: 50 ft   |
| Lannate LV (methomyl)  | Carbamate Insecticide       | Water: 100 ft  |
| Lannate SP (methomyl)  | Carbamate Insecticide       | Water: 100 ft  |
| Monitor 4L (methamidaphos)   | Organophosphate Insecticide | Dwellings or unprotected persons: 150 ft                         |
| Poast Plus (sethoxydim)  | Herbicide                   | Sensitive species: 200 ft  |

The other labels with drift statements describe how to minimize drift, but do not require specific numerical buffers. Eleven products use the standard EPA mandatory and advisory drift language, a couple refer to maintaining “adequate buffers” and the others show general language about avoiding drift.

Also, EPA recently published a registration decision on nine Phosmet (Imidan) “time-limited” uses. These uses are for high bush blueberries, peaches, nectarines, apples (including crabapples), pears, plums, prunes, grapes and apricots. The new uses require a 50-foot aerial buffer between houses or other occupied buildings. EPA’s plan for low bush blueberries was not addressed.

| <b>TABLE 2. AAPCO PROPOSED STANDARD AND OTHER STATES' DRIFT RULES</b>  |  |
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| <b>AAPCO Proposed Standard</b>   | "Dot not apply this product in a manner that allows spray to drift from the application target site and/or cause harm to humans, animals or other non-target sites (AAPCO 2007)."  |
| <b>Alaska: Department of Environmental Conservation Pesticide Control 18 AAC 90</b>  | <p><b>90.8 Forestry Vegetation Management</b><br/> <b>18 AAC 90.800. Protective area.</b> An applicator who applies a pesticide as part of a forestry vegetation management project:<br/> (1) may not apply a pesticide within a protective area<br/> (A) of 200 feet from a surface water, public water system;<br/> (B) sufficient in size to ensure the pesticide does not enter a pesticide-free zone composed of surface or marine water bodies plus 35 ft of land around them</p> <p><b>18 AAC 90.990. Definitions.</b><br/> (16) under the definition of "drift" "amount sufficient to cause injury" includes; residue in excess of the tolerance; death, stunting, deformation, or another detrimental effect <b>AND</b> movement to a nontarget site of a measurable amount of pesticide that is objectionable to the owner of or resident at the nontarget site</p>                |
| <b>Arizona; Title 3 chapter 3 section 3-365 and 3-366 and Arizona Administrative Code R3-3-101 Title 3 chapter 3 section 3-365</b> | <p>Specific 1/4 mile (1320 ft) buffers for odoriferous pesticides (definition not given) and highly toxic pesticides "Danger; Skull and cross bones" or paraquat; buffers are for schools, daycares, health care institution OR at least 25 residences</p> <p><b>Title 3 chapter 3 section 3-366 and Arizona Administrative Code R3-3-101</b><br/> Requires 24-hour notice to AZ DOA if aerial application is to be made in a pesticide management area<br/> Defines a "Pesticide Management Area" when all of the following are met:<br/> Distance between treated area and schools, daycares, health care institution is less than 1/4 mile (1320 ft)<br/> Pesticide is applied by air<br/> Pesticide complained about is odoriferous or Highly toxic<br/> Department receives complaints within a year from 5 or 5% of residences OR any schools, daycares or health care institution</p> |
| <b>Connecticut; Regulations of Ct State Agencies Sec 22a-54-1 and 22a-66-7 Sec 22a-54-1</b>  | <p>Aerial application requires a permit<br/> No permits given for aerial application of broad spectrum pesticides for non-agricultural purposes<br/> A Permit is needed for agricultural aerial spraying<br/> Emergency spraying for vectors (mosquitoes and EEE) is allowed if certain conditions are met</p> <p><b>22a-66-7</b><br/> No aerial application to land less than 10 acres; or to congested areas zoned 1/2 acre or less or municipally or privately owned public parks, public playgrounds and public swimming areas unless approved by Dept of Health</p> <p><b>(G) (1)</b> for the aerial application of pesticides and fertilizers other than <i>Bacillus thuringiensis</i> (Bt), a written release is necessary from any landowner</p>   |

**TABLE 2. AAPCO PROPOSED STANDARD AND OTHER STATES' DRIFT RULES**

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|  | <p>or resident whose property is under the spray pattern of the aerial application or subject to drift from such an application. The area subject to drift will be considered to be a minimum of 200 feet from the flight path of a helicopter and 300 feet from the flight path of a fixed-wing aircraft.</p> <p>No dust within 100 ft of a highway; no pesticides within 200 ft of a watercourse, pond or lake</p>   |
| <b>Indiana; Rule 12. Pesticide Drift 357 IAC 1-12-1 357 and IAC 1-12-2 Drift restriction Rule 12. Pesticide Drift 357 IAC 1-12-2 Drift restriction</b> | <p>Sec. 2. A person may not apply a pesticide in a manner that allows it to drift from the target site in sufficient quantity to cause harm to a nontarget site.</p> <p>Rule 12. Pesticide Drift 357 IAC 1-12-1 357<br/> "Sufficient quantity to cause harm" means an amount of pesticide that results in any of the following: (A) Pesticide residues in excess of established tolerances or standards.<br/> (B) Documented: (i) death; (ii) illness; (iii) stunting; (iv) deformation; (v) discoloration; or (vi) other effects; that are detrimental to the nontarget site</p>  |
| <b>Massachusetts 333 CMR 13.01 to 13.04</b>  | <p>Defines "Protected Area" similar to SALO discussion, buildings plus 1000 surrounding them, developed recreation areas, playgrounds, bus stops, etc.</p> <p>Ground and Air 333 CMR 13.02<br/> Pesticides with "Danger" signal word and Restricted use/limited use shall not be used in agricultural within 50 ft of a public way without posting. No tolerance violations</p> <p>Air Only 333 CMR 13.04<br/> Need a permit<br/> Required buffers include:<br/> 150 ft of persons or vehicles in road<br/> no liquid formulations within 150 ft of a protected area; no granulars within 50 ft without a signed waiver<br/> no liquid formulations within 400 ft of a water supply; no granulars within 250 ft;<br/> swaths will be parallel to AND no turns over roads, protected areas and water bodies unless the applicator is endangered</p> |

**TABLE 2. AAPCO PROPOSED STANDARD AND OTHER STATES' DRIFT RULES**

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|--|---|
| <b>Minnesota Statutes 2006</b><br><b>5.29 Sec. 6., section</b><br><b>18B.07, subdivision 2</b> | <p>(a) A person may not use a pesticide; that endangers humans, damages agricultural products, food, livestock, fish, or wildlife; or will cause unreasonable adverse effects on the environment.</p> <p>(b) A person may not direct a pesticide onto property beyond the boundaries of the target site. A person may not apply a pesticide resulting in damage to adjacent property.</p> <p>(c) A person may not directly apply a pesticide on a human by overspray or target site spray, except when intended for use on a human, mosquito control operations, control of gypsy moth, forest tent caterpillar, or other pest species, as determined by the commissioner, and the pesticide used is a biological agent; or for a public health risk, as determined by the commissioner of health, and the commissioner of health, in consultation with the commissioner of agriculture, determines that the application is warranted based on the commissioner's balancing of the public health risk with the risk that the pesticide application poses to the health of the general population, with special attention to the health of children.</p> |
| <b>New Jersey; Administrative</b><br><b>Chapter 30 Sub-chap</b>                                | <p>They have tight restrictions on applications to fields or areas less than 3 acres<br/>They also have general restrictions as shown below:</p> <p>(q) No pesticide shall be applied by aircraft within 300 feet horizontally of the premises of schools, hospitals, nursing homes, houses of religious worship, or any building, other than a private residence, which is used for business or social activities if premise or building is occupied by people</p> <p>(1) Application within 100 feet of an agricultural business shall be allowed; providing only a general use pesticide is applied and warning is given prior to application so that doors and/or windows on the building are closed and the occupants thereof allowed time to vacate the building.</p> <p>(r) No pesticide shall be directly sprayed by aircraft on the right-of-way of a public road, except when the right-of-way is included as the target site.</p> <p>(s) No pesticide shall be deposited by aircraft within 100 feet of any private residence unless the aerial pesticide applicator and/or applicator business has written consent</p>                      |
| <b>North Carolina 02 NCAC</b><br><b>09L 02 NCAC 09L</b>  | <p>No person shall apply a pesticide(s) aerially under such conditions that drift from pesticide(s) particles or vapors results in adverse effect.</p> <p>No pesticide(s) shall be applied by an aerial applicator:</p> <p>I. while any persons other than those assisting in the application are in the target area.</p> <p>II. to any nontarget area in such a manner that it is more likely than not that adverse effect will occur</p> <p>III. within the limits of any congested area except when permission is granted under Federal Aviation Regulations Volume VII, Part 137.</p> <p>IV. within 300 feet of the premises of schools, hospitals, nursing homes, churches, or any building (other than a residence) which is used for business or social activities if either the premises or the building is occupied by people.</p>   |

**TABLE 2. AAPCO PROPOSED STANDARD AND OTHER STATES' DRIFT RULES**

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|---|--|
|   | <p>V. on the right-of-way of a public road or within 25 feet of the road, whichever is the greater distance</p> <p>VI. within 100 feet of any residence.</p> <p>No pesticide labeled toxic or harmful to aquatic life shall be deposited in or near any body of water in such a manner as to be hazardous to aquatic life unless such aquatic life is the intended target of the pesticide</p>   |
| <b>Wisconsin ATCP 29.01 and ATCP29.50</b> | <p>Section (2) indicates no one may make an application that results in pesticide overspray or "significant drift".</p> <p>(2) (c) defines "significant drift" as being any amounts that: cause actual harm to persons, property or the environment; That could potentially harm persons, property or the environment under any reasonably foreseeable circumstances regardless of whether an actual exposure or harm has occurred; or is readily visible.</p> |

## State Statutes

### ALASKA DEPARTMENT OF ENVIRONMENTAL CONSERVATION PESTICIDE CONTROL 18 AAC 90

**18 AAC 90.600. Operating requirements for applicators.** When using pesticides, an applicator shall

- (1) adhere to requirements specified by the labeling;
- (2) when measuring concentrated materials, use only apparatus accurately calibrated to the smallest unit in which the material is being weighed or measured;
- (3) when the active ingredient is in suspension, or when using a mixture of materials, maintain a uniform mixture; and
- (4) thoroughly clean pesticide-contaminated apparatus after use. (Eff. 2/15/98, Register 145; am 9/30/2007, Register 183)

**18 AAC 90.605. Ground and aircraft spray apparatus.**

(a) The department will, in its discretion,

- (1) inspect ground or air apparatus used to apply pesticides; and
- (2) require repairs of ground or air apparatus or other changes before further use.

(b) A person applying pesticides while using an aircraft or helicopter shall ensure that aircraft apparatus used to apply a pesticide

(1) meets the following requirements:

(A) the flow of liquid to aircraft nozzles must be controlled by a positive shutoff system, and each nozzle must be equipped with

(i) a check valve, with the flow controlled by a check-valve device or a boom pressure release device that puts a negative pressure on the system; or

(ii) a positive action valve system; and

(B) fixed-wing aircraft and helicopters must be equipped so that the orifice of each nozzle can be directed backward, parallel to the horizontal axis of the aircraft in flight; and

(2) is calibrated to apply the pesticide at the concentration and rate of application specified by the pesticide labeling. (Eff. 2/15/98, Register 145)

**18 AAC 90.610. Drift control and dispersion restrictions.**

A person may not

- (1) apply a pesticide in a manner that results in pesticide drift;
- (2) apply a pesticide when wind speed, as measured using a calibrated device to measure wind velocity

and direction, exceeds

- (A) the maximum wind speed stated in the labeling; or
- (B) seven miles per hour, if no wind speed is stated in the labeling; or
- (3) disperse a pesticide from aircraft while in flight, except over the target site at the customary height for the target; emergency dumping is not a violation of this paragraph but is a discharge that must be reported as required by 18 AAC 90.040.

## **18 Chapter 90. Article 8. Forestry Vegetation Management.**

**18 AAC 90.800. Protective area.** An applicator who applies a pesticide as part of a forestry vegetation management project

- (1) may not apply a pesticide within a protective area
  - (A) of 200 feet, measured horizontally, from a surface water source that is used for a public water system; for purposes of this subparagraph, “public water system” has the meaning given “public water system” in 18 AAC 80.1990; and
  - (B) sufficient in size to ensure that a pesticide applied by the applicator does not enter a pesticide-free zone composed of
    - (i) a surface water or marine water body; and
    - (ii) land within 35 feet of that surface water, measured horizontally from the ordinary high water mark, or that marine water body, measured horizontally from the mean higher high water mark; and
- (2) if the department determines that it is necessary to protect against an unreasonable adverse effect, may be required by the department to
  - (A) conduct monitoring; or
  - (B) modify the protective area described in (1) of this section.

## **18 AAC 90.990. Definitions.**

- (16) “drift” means the physical airborne movement, at the time and as a result of pesticide use, from the target site to a nontarget site in an amount sufficient to cause injury at the nontarget site, made in a manner inconsistent with product label directions or the requirements of this chapter or from treatment made in a careless, faulty, or negligent manner; “drift” does not include the off-target movement by erosion, volatility, or windblown soil particles after treatment; for purposes of this paragraph, “amount sufficient to cause injury” means an amount of pesticide that could cause
  - (A) pesticide residue in excess of the established tolerance for the pesticide on an affected agricultural commodity at a nontarget site;
  - (B) death, stunting, deformation, or another effect that is detrimental to the environment, including humans, domestic animals or wildlife, or desirable plants at the nontarget site; or
  - (C) movement to a nontarget site of a measurable amount of pesticide that is objectionable to the



owner of or resident at the nontarget site

(20) “forestry vegetation management” means the application of a pesticide for afforestation or reforestation, including conifer release; “forestry vegetation management” does not include the application of a pesticide for control of nonindigenous species or pests that may present a risk to human health or the environment; for purposes of this paragraph,

(A) “afforestation” means the establishment of a forest or a stand in an area where the preceding vegetation or land use was not a forest;

(B) “conifer release” means a project to clear weedy vegetation from the area around young conifer seedlings;

(C) “reforestation” means the natural or artificial restocking of an area

(31) “mean higher high water mark” means the average of all the higher high water heights over a specified period of time; for purposes of this paragraph, “higher high water” means the higher of the high water of a specified day

(33) “ordinary high water mark” means the mark along the bank or shore up to which the presence and action of the tidal or nontidal water are so common and usual, and so long continued in all ordinary years, as to leave a natural line impressed on the bank or shore and indicated by erosion, shelving, changes in soil characteristics, destruction of terrestrial vegetation, or other distinctive physical characteristics

(38) “pesticide-free zone” means a strip of land where pesticides may not be directly applied or allowed to reach through natural transport; for purposes of this paragraph, natural transport includes wind, runoff, and leaching;

(45) “protective area” means an area of land

(A) between the treatment area and either a pesticide-free zone or another area that requires protection; and

(B) where pesticides are not directly applied but some pesticides may enter through natural transport; for purposes of this subparagraph, natural transport includes wind, runoff, and leaching;

## **ARIZONA REVISED STATUTES: TITLE 3 CHAPTER 3 SECTION 3-365.**

### **Buffer zones**

- A. The odoriferous pesticides profenofos, sulprofos, def and merphos and other pesticides with similar odoriferous characteristics shall not be applied within one-fourth mile of a school, a day care center, a health care institution, a child care group home as defined by section 36-897 or at least twenty-five residences adjoining the field to be sprayed, except by soil injection.
- B. Highly toxic pesticides or paraquat shall not be applied within four hundred feet of a health care institution, except by soil injection.
- C. Highly toxic pesticides or paraquat shall not be applied in liquid form, except by soil injection, within one hundred feet by aircraft or within fifty feet by ground equipment of at least twenty-five residences adjoining the field to be sprayed. Highly toxic pesticides shall not be applied in dust form by aircraft

within three hundred feet of at least twenty-five residences adjoining the field to be sprayed.

- D. Highly toxic pesticides and paraquat shall not be applied within one-fourth mile of schools, child care group homes, or day care centers. However, highly toxic pesticides and paraquat may be applied within one-fourth mile of schools, child care group homes, and day care centers unless authorized activities at the school, child care group home or day care center are scheduled to occur before the reentry time period assigned to the pesticide by provisions of the product label elapses. A responsible individual at a school or a day care center shall be notified of the application of pesticides, other than highly toxic pesticides or paraquat, by aircraft during daylight hours.
- E. Nothing in this section permits the application of pesticide in such a way as to cause drift within the grounds of a residence, school, health care institution, child care group home, or day care center, but compliance with this section and the requirements of the pesticide label establishes a presumption of compliance with this subsection.
- F. For the purposes of this section, distances shall be measured from the property boundary of a school, residence, day care center, child care group home, or health care institution closest to the field to be sprayed to the area of the field that is to be sprayed.

### 3-366. Pesticide management areas

- A. The director shall designate pesticide management areas. Pesticide management areas may be urban areas that are adjacent to farmlands and have a history of concerns known by the department regarding nearby aerial pesticide applications. The director may adopt rules for designating pesticide management areas.
- B. If possible at least twenty-four hours before applying a pesticide listed by the director under section 3-362, subsection A, paragraph 3 by aircraft in a pesticide management area the applicator shall notify the department. In any event, every reasonable attempt shall be made to notify the department before every application of pesticide in a pesticide management area.

## **Arizona Administrative code**

### R3-3-101. Definitions

“Drift” means the physical movement of pesticide through the air at the time of a pesticide application from the application site to any area outside the boundaries of the application site. Drift does not include movement of a pesticide or associated degradation compounds to any area outside the boundaries of an application site if the movement is caused by erosion, run off, migration, volatility, or windblown soil particles that occur after application, unless specifically addressed on the pesticide label with respect to drift control requirements.

“Highly toxic pesticide” means a pesticide with an acute oral LD 50 of 50 milligrams per kilogram of body weight or less, dermal LD 50 of 200 milligrams per kilogram of body weight or less, or inhalation LD 50 of 0.2 milligrams per liter of air or less, and the label bears the signal words "danger" and "poison" and shows a skull and crossbones.

“Unreasonable adverse effect” means any unreasonable risk to a human being or the environment, taking into account the economic, social, and environmental costs and benefits of the use of any pesticide, or a human dietary risk from residues that result from a use of a pesticide in or on any food as documented by the Department through its investigation

### R3-3-304. Pesticide Management Areas; Criteria for Designation

A. The Associate Director shall annually publish a list of all locations within the state that are designated as pesticide management areas under A.R.S. §§ 3-366. The list is available at every Environmental Services Division office.

B. The Director shall designate a location as a pesticide management area if all of the following evaluation criteria are met:

1. The distance between the application site and the property boundary of any residence, school, child care facility, or health care institution is less than 1/4 mile;
2. A pesticide is applied by aircraft;
3. A pesticide complained about under subsection (B)(4) is highly toxic or odoriferous; and
4. The Department receives complaints alleging pesticide misuse within a 12-month period from at least five or five percent, whichever is greater, of the residences located less than 1/4 mile from the application site or a complaint from any school, child care facility, or health care institution located less than 1/4 mile from the application site.

C. If, upon a written request from a person, or upon the Department's initiative, the Director determines that a pesticide management area no longer meets all of the criteria listed in subsection (B), the Director may remove the pesticide management area from the Department's annual list.

D. A person may petition the Department at any time to add or delete an area to or from the list of pesticide management areas. The petitioner shall address all of the criteria listed in subsection (B). The Director shall make a decision on each petition no later than 90 days from the date the petition was submitted.

## **CONNECTICUT REGULATIONS SECTION 22A-66A-7 JUNE 3, 2008**

(a) Application for a permit to apply pesticides or fertilizers from the air shall be made on forms furnished by the Commissioner and the applicant shall furnish all information required by the Commissioner.

(b) No pesticide may be applied from the air to a tract of land less than 10 acres in size unless the tract of land to be treated is part of a larger parcel of land that is at least 10 acres in size. All aerial applications must have the prior inspection and approval required by Section 22a-54(e) of the General Statutes.

(c) No pesticidal dust may be applied within 100 feet of a public highway.

(e) No pesticide shall be applied from the air for agricultural purposes within 200 feet of a watercourse, pond or lake.

(f) Congested areas shall be considered those areas zoned 1/2 acre or less, or municipally or privately owned public parks, public playgrounds, and public swimming areas.

(g) (1) for the aerial application of pesticides and fertilizers other than *Bacillus thuringiensis* (Bt), a written release is necessary from any landowner or resident whose property is under the spray pattern of the aerial application or subject to drift from such an application. The area subject to drift will be considered to be a minimum of 200 feet from the flight path of a helicopter and 300 feet from the flight path of a fixed-wing aircraft.

B. (A) An applicant for a permit for aerial application of *Bacillus thuringensis* (Bt) must notify each landowner or resident whose property is under the spray pattern of an aerial application or subject to drift from such an application at least 31 days prior to the proposed date of spraying. The area subject to drift will be considered to be a minimum of 200 feet from the flight path of a helicopter and 300 feet from the flight path of a fixed-wing aircraft.

(B) Such notice shall be in writing and shall state:

- (i) the proposed date or dates on which spraying is to occur;
- (ii) the name of the pesticide to be sprayed;
- (iii) the name of the permit applicant to be sprayed;
- (iv) the name of the applicator, if known;
- (v) in what manner, to whom and at what address the landowner or resident is to object to such spraying if he or she desires;
- (vi) the time limit within which he or she desires;
- (vii) that if no objection is made, the area will be sprayed.

(C) After receiving notice, a landowner or resident may waive his or her right to object by signing a written release. If all landowners or residents in any area waive their right to object, that area may be sprayed prior to expiration of the objection period, provided, however, that the information specified in subparagraph (E) is forwarded to the commissioner, and a permit is obtained.

(D) *Bacillus thuringensis* (Bt) shall not be applied from the air if a landowner or resident whose property is under the spray pattern or subject to drift from the application objects, in writing, to the permit application within 30 days of the date notification was received.

(E) At the end of the objection period, the permit applicant shall forward to the commissioner

- (i) all objections received;
- (ii) a list of those landowners or residents who have consented, those who have objected, and those who have not responded; and
- (iii) proof that all landowners or residents have received written notice. Acceptable proof may include receipts of certified mail delivery or signatures secured at time of delivery.

(Effective July 13, 1993)

## **INDIANA RULE 12. PESTICIDE DRIFT 357 IAC 1-12-1 DEFINITIONS**

### **357 IAC 1-12-1 Definitions**

Authority: IC 15-3-3.6-4

Affected: IC 15-3-3.6-14

## INDIANA PESTICIDE REVIEW BOARD

## Indiana Administrative Code Page 18

Sec. 1. The following definitions apply throughout this rule:

(1) "Drift" means the physical movement of a pesticide through the air at the time of application from the target site to a nontarget site. The term shall not mean the movement of a pesticide, at a time after the application has been made, by any of the following:

- (A) Erosion.
- (B) Volatility after deposition on the target site.
- (C) Windblown soil particles.

(2) "Nontarget site" means any site that is not the intended target site of the pesticide application, including, but not limited to, the following:

- (A) Personal property.
- (B) Public property.
- (C) A body of water.
- (D) A person.
- (E) An animal.
- (F) Livestock.
- (G) Managed bees.
- (H) A commodity.
- (I) A desirable plant.

(3) "Standards" means the legally enforceable limits, as established by state or federal regulations.

(4) "Sufficient quantity to cause harm" means an amount of pesticide that results in any of the following:

- (A) Pesticide residues in excess of established tolerances or standards.
- (B) Documented:
  - (i) death;
  - (ii) illness;
  - (iii) stunting;
  - (iv) deformation;
  - (v) discoloration; or

(vi) other effects;

that are detrimental to the nontarget site.

(5) "Target site" means the specific site to which a pesticide was intentionally applied.

(6) "Tolerance" means the maximum amount of a pesticide residue, as established by the U.S. Environmental Protection Agency, that may lawfully remain on or in food or animal feed.

(7) "Volatility" means the ability of a pesticide to move to a nontarget site as a vapor rather than as a:

(A) drift particle; or

(B) spray droplet.

*(Indiana Pesticide Review Board; 357 IAC 1-12-1; filed Mar 17, 2006, 1:00 p.m.: 29 IR 2523)*

### **357 IAC 1-12-2 Drift restriction**

Authority: IC 15-3-3.6-4

Affected: IC 15-3-3.6-14

Sec. 2. A person may not apply a pesticide in a manner that allows it to drift from the target site in sufficient quantity to cause harm to a nontarget site. *(Indiana Pesticide Review Board; 357 IAC 1-12-2; filed Mar 17, 2006, 1:00 p.m.: 29 IR 2524)*

## **MASSACHUSETTS 333 CMR: PESTICIDE BOARD 2/9/07 333 CMR - 85**

### **13.01: Definitions**

For the purpose of 333 CMR 13.00, the definitions set forth in 333 CMR 2.00, 333 CMR 10.02, and 333 CMR 13.01 apply, unless the context or subject matter requires a different interpretation.

**Agricultural Applications.** Those pesticide applications to agricultural land as defined under M.G.L. c. 128, § 1A.

**Protected Areas.** Those areas defined as follows:

(a) Any residential, commercial, municipal, hospital, school or other building where people gather and the area within a 100-foot radius surrounding these structures, provided that such Protected Area shall not exceed the property line; and

(b) Any developed recreation area open to public accommodation, including any developed public or commercial campground, developed picnic area, developed park and recreation facility, playground, school bus stop, or other area developed for organized recreation.

### **13.02: General Provisions**

(3) **Agricultural Applications Near Public Ways.** No application of a pesticide bearing the signal word "Danger" on the label and classified as a restricted use or state limited use pesticide pursuant to 333 CMR 8.04(1)(b) shall be made for the purpose of producing an agricultural commodity to a site within 50 feet of a public way unless notice of the application is given by the posting of a sign. Such sign shall:

(a) Be posted at least every 200 feet along the perimeter of the treated area facing the public way and at every principal entrance to the treated area facing the public way;

(b) Be posted between two and 24 hours prior to the application;

(c) Be removed no sooner than 48 hours after the application and no sooner than the expiration of the Restricted Entry Interval (REI) stated on the label instructions under the heading "Agricultural Use Requirements";

(d) Be removed no later than 48-hours after the expiration of the Restricted Entry Interval (REI) stated on the label instructions under the heading "Agricultural Use Requirements";

(e) Have a background color that contrasts with red. The words "Danger" and "Peligro", plus "Pesticides" and "Pesticidas" shall be at the top of the sign, and the words "Keep Out" and "No Entre" shall be at the bottom of the sign. Letters for all words must be clearly legible. A circle containing an upraised hand on the left and a stern face on the right must be at the center of the sign. The inside of the circle must be red, except that the hand and a large portion of the face must be in a shade that contrasts with red. The length of the hand must be at least twice the height of the smallest letters. The length of the face must be only slightly smaller than the hand. Additional information such as the name of the pesticide and the date of application may appear on the warning sign if it does not detract from the appearance of the sign or change the meaning of the required information; and

(f) Be at least 14 inches by 16 inches in size, with letters at least one inch in height.

(4) Applications Adjacent to Agricultural Lands. Pesticide applications made to areas adjacent to crops or pasturelands shall be so made that residues in excess of Environmental Protection Agency tolerances for crops and pasturage do not occur.

(5) All persons shall use pesticides in such a manner that there be no unreasonable adverse effect on the non-target environment.

(6) All persons shall:

(a) Use only methods and equipment which insure proper application of materials.

(b) Operate in a careful manner and only when conditions are proper for controlling pests in the locality.

(c) Make no false or fraudulent claims. The term fraud includes misrepresentation personally or through the media, falsified records, invoices or reports.

### 13.03: Exclusions from Pesticide Application

(1) General.

(a) Wide Area Applications of pesticides and mosquito control applications of pesticides approved by the State Reclamation and Mosquito Control Board shall not be made to private property which has been designated for exclusion from such application by a person living on or legally in control of said property.

(b) Designation for exclusion from Wide Area Applications of pesticides and mosquito control applications of pesticides approved by the State Reclamation and Mosquito Control Board may be made by supplying the clerk of the municipality in which such lands lie with a certified letter providing the name, address, and telephone number (if any) of the person requesting the exclusion, the address of the

property to be excluded, and a description of the types of pesticide application programs for which exclusion is requested.

(c) Designation for exclusion may be made prior to March 1st of each year and shall be effective from April 1st of that year through March 31st of the following year.

(d) A designation for exclusion made by a tenant shall not be deemed to limit the right of the landlord to apply, or authorize the application of, pesticides to that land if by the express or implied terms of the written or oral rental agreement the owner retains the right to apply or authorize the application of such pesticides.

(e) 333 CMR 13.03 shall not be deemed to limit the right of an easement holder to apply pesticides to land which is subject to the easement if the easement expressly or implicitly includes the right to apply pesticides.

(f) A designation for exclusion made by a joint owner, tenant in common, or owner of a condominium unit shall not be deemed to limit the right of any other joint owner, tenant in common, condominium unit owner or condominium association to apply or authorize the application of pesticides to land if by the express or implied terms of the deed, condominium agreement or other agreement governing such land such other joint owner, tenant in common, condominium unit owner or condominium association retains the right to apply or authorize the application of such pesticides.

(2) Marking Areas for Exclusion. All areas designated for exclusion from Wide Area Applications of pesticides and mosquito control applications of pesticides approved by the State Reclamation and Mosquito Control Board shall be marked as follows:

(a) Applications by Aircraft. The person requesting exclusion shall clearly mark boundaries or areas to be excluded with helium filled balloons or other marking methods previously approved by the Department. Such balloons or other marking materials shall be provided by the Contracting Entity. The Contracting Entity shall appropriately mark the excluded areas on the maps required under 333 CMR 13.04(5) and on maps used by the pilots who shall be alerted by the Contracting Entity of the markings delineating the excluded area.

(b) Ground Applications. The person requesting exclusion shall mark the boundaries or areas to be excluded at least every 50 feet with orange surveyor's tape or another Department-approved marking device which clearly defines the area of exclusion. These markings shall be made known to the Contracting Entity, who shall be responsible for communicating the details of their marking to those who will carry out the application.

(3) Requests for exclusion shall not be honored in those cases in which:

(a) The Commissioner of Public Health has certified that the application is to be made to protect the Public Health;

(b) The Commissioner of the Department of Conservation and Recreation has certified that the application is necessary to contain an infestation of a recently introduced pest; or

(c) The Commissioner of the Department of Agricultural Resources has certified that the application is necessary to contain an infestation of a pest which is a significant threat to agriculture.

#### 13.04: Application by Aircraft



(1) Certification Requirement. No person shall apply pesticides by aircraft unless certified by the Department in Category 34 - Aerial.

(2) Permit Requirement. Except as provided for below, all who elect to control pests by the use of pesticides applied by aircraft shall do so only after receiving a permit issued by the Department. The Department shall issue such permit in those cases in which the applicant presents to the Department a plan acceptable to the Department and in compliance with the provisions of M.G.L. c. 132B, and the regulations promulgated thereunder.

(3) Exemptions from Permit Requirement. The following classes of applications by aircraft are exempted from the provisions of 333 CMR 13.04(2):

(a) Those carried out on lands owned or controlled by the DCR and under the authority of M.G.L. c. 132;

(b) Those carried out in the conduct of mosquito control programs approved by the State Reclamation and Mosquito Control Board;

(c) Those made to state, county, and municipal lands under the authority granted to the public agencies having control of such lands, so long as these applications are designed to confine said applications to such public lands; and

(d) Agricultural Applications as defined.

(4) Notification for Aerial Applications. With the exception of Agricultural Applications, no applications of pesticides by aircraft shall be made unless the following conditions have been met:

(a) Notification of the proposed application has been given by the Contracting Entity to the public residing on adjacent lands by publication of a notice in a newspaper of general circulation normally used by the municipality for legal notices not later than two days before the application and no sooner than ten days before application. The notice shall include all of the following information:

1. Purpose of application;
2. Method of application;
3. Area of application;
4. Name and EPA Registration Number of the pesticide product to be applied;
5. Anticipated commencement date and time of application;
6. Phone number of a contact person from whom additional information can be obtained;
7. Location where the public may view maps delineating the area of application; and
8. Locations where materials, used for marking areas of exclusion, will be distributed.

(b) Notification of the proposed application has been given to the Department by the Contracting Entity at least two Department business days prior to the proposed application. Said notice shall include but not be limited to information required by 333 CMR 13.04(4)(a)1. through 8.

(c) Notification of proposed application has been given by the Contracting Entity to the Local

Superintendent. Said notice shall include but not be limited to information required by 333 CMR 13.04(4)(a)1. through 8.

(5) Use and Maintenance of Maps. The site of each application of pesticides by aircraft, other than for the production of an agricultural commodity, shall be recorded on a U.S.G.S. topographical or other map as specified by the Department, which shall be maintained by the applicator or his/her employer for a period of three years and shall be made available to the Department upon request.

(6) Aerial Applications Within 150 feet of a Public Way. No aerial application of pesticides shall occur within 150 feet of persons or vehicles transiting a public way which is owned or maintained by a government entity.

(a) Exemptions. 333 CMR 13.04(6) shall not apply to Wide Area Applications to which one or more of the following applies:

1. The Commissioner of the Department of Conservation and Recreation has certified that the application is necessary to contain an infestation of a recently introduced pest;
2. The District Supervisor or Local Superintendent has determined that the application is necessary to control Public Nuisance Pests; or
3. The Commissioner of the Department of Agricultural Resources has certified that the application is necessary to contain an infestation of a pest, which is a significant threat to agriculture.

(b) Exemption. 333 CMR 13.04(6) shall not apply to mosquito-adulticide applications approved by the State Reclamation and Mosquito Control Board.

(7) Exemptions for Aerial Application of Mosquito Larvicides. Mosquito larvicide applications made by mosquito control programs approved by the State Reclamation and Mosquito Control Board are exempt from 333 CMR 13.04(4) and 333 CMR 13.04(6) if all of the following conditions have been met:

(a) Notice of the proposed application has been published in a newspaper of general circulation in the affected municipality between February 1st and March 1st of the year the application is intended to be made. The notice shall include the following information:

1. Purpose of control program;
2. Method of application;
3. Area of application if known;
4. Name and EPA Registration Number of the pesticide product to be applied; and
5. Phone number of a contact person from whom additional information can be obtained.

Within seven calendar days of publication, a copy of the notice shall be provided to the Department and the Board of Health in the municipality where the application is to be made.

(b) Notice of the proposed application has been provided to the Department and the Board of Health in the municipality where the application is to be made prior to the application. The notice shall include the following information:

1. Purpose of control program;

2. Method of application;
3. Area of application;
4. Date and time of application;
5. Name and EPA Registration Number of the pesticide product to be applied; and
6. Name of the applicator and phone number of a contact person from whom additional information can be obtained.

(8) Emergency Provision. In the event of an emergency situation requiring immediate application of pesticides by aircraft, the Department may waive or alter any or all of the provisions of 333 CMR 13.04.

(9) Aerial Agricultural Applications. The following conditions shall apply to fixed wing Agricultural Applications of pesticides:

(a) The Department may approve agricultural land for fixed wing aerial application on an annual basis. No aerial Agricultural Application of pesticides shall be made by fixed wing aircraft unless a valid permit has been issued by the Department for the field to be treated. The Department shall issue permits only in those cases where the Department has determined that such fixed wing aerial applications will not cause or will not likely cause injury to humans and will not cause an unreasonable adverse effect on the environment.

(b) Prior to issuing such a permit, the Department will assess conditions at the site to be treated in order to determine the likelihood of off-target movement of pesticides applied. Based on this determination, the Department may attach conditions to the permit. The Department shall notify the local board of health of permit application(s) and any conditions attached to the permit.

(c) Unless waived by the Department for good cause, permit applications must be received at least 21 calendar days prior to the proposed start of applications and must contain the following information:

1. The name, address and phone number of the manager or farmer of the property;
2. A Town/City Assessor map, if available, or another map acceptable to the Department provided that the map clearly identifies the field and Protected Areas;
3. The crop planted or to be planted in the field;
4. The number of acres of the field; and
5. Names and EPA Registration Numbers of pesticide products to be applied during that season.

(d) Aerial Agricultural Application of pesticides for the purpose of producing an agricultural commodity shall be made subject to the following conditions:

1. No aerial Agricultural Application shall be made with ultra low volume technique.
2. Aerial Agricultural Application shall cease if there is visible drift to non-target areas. Application shall not resume until weather conditions or operating conditions have changed so as to preclude drift.
3. No aerial Agricultural Application of liquid formulation pesticides shall be made to

any area of an agricultural field if the area to be treated is within 150 feet of a Protected Area, unless the owner(s) or manager(s) of the property containing the Protected Area has submitted a written waiver to the farmer or manager of the site to be treated.

4. No aerial Agricultural Application of granular formulation pesticides shall be made to agricultural land if the area to be treated is within 50 feet of a Protected Area, unless the owner(s) or manager(s) of the property containing the Protected Area has submitted a written waiver to the farmer or manager of the site to be treated.

5. No aerial Agricultural Application of a liquid formulation pesticide shall be made within 400 feet of a public surface water supply, not to include tributaries thereto.

6. No aerial Agricultural Application of a granular formulation pesticide shall be made within 250 feet of a public surface water supply, not to include tributaries thereto.

7. No aerial Agricultural Application of pesticides shall be made to an area of an agricultural field if the area to be treated is within 50 feet of adjacent non-agricultural property unless the owner(s) or manager(s) of the abutting property has submitted a written waiver to the farmer or manager of the site to be treated.

(e) Unless the pilot or others are endangered, pesticide applicators for aerial Agricultural Applications shall not conduct turns over adjacent Protected Areas and water bodies not located within the confines of the agricultural site.

(f) Unless the pilot or others are endangered, pesticide applicators for Agricultural Applications shall make swaths parallel to roads, water bodies and Protected Areas.

(g) No aerial Agricultural Application of a pesticide for the purpose of producing an agricultural commodity shall be made to a site within 500 feet of a Protected Area unless notice of the application is given by the posting of a sign. All signs posted pursuant to 333 CMR 13.04(g) shall meet with the following requirements:

1. Be posted at conspicuous points but in no case less than every 200 feet and at every principal entrance fronting a public road;
2. Be posted between two and 24 hours prior to the application;
3. Be removed no sooner than 48 hours after the application and no sooner than the expiration of the Restricted Entry Interval (REI) stated on the label instructions under the heading "Agricultural Use Requirements;
4. Be removed no later than 48-hours after the expiration of the Restricted Entry Interval (REI) stated on the label instructions under the heading "Agricultural Use Requirements;
5. Have a background color that contrasts with red. The words "Danger" and "Peligro," plus "Pesticides" and "Pesticidas" shall be at the top of the sign, and the words "Keep Out" and "No Entre" shall be at the bottom of the sign. Letters for all words must be clearly legible. A circle containing an upraised hand on the left and a stern face on the right must be at the center of the sign. The inside of the circle must be red, except that the hand and a large portion of the face

must be in a shade that contrasts with red. The length of the hand must be at least twice the height of the smallest letters. The length of the face must be only slightly smaller than the hand. Additional information such as the name of the pesticide and the date of application may appear on the warning sign if it does not detract from the appearance of the sign or change the meaning of the required information; and

6. Be at least 14 inches by 16 inches in size, with letters at least one inch in height.

## **MINNESOTA STATUTES 2006 5.29 SEC. 6., SECTION 18B.07, SUBDIVISION 2**

Subd. 2. Prohibited pesticide use.

- A.
- B. \
- C. A person may not use, store, handle, distribute, or dispose of a pesticide, rinsate, pesticide container, or pesticide application equipment in a manner:
  - a. that is inconsistent with a label or labeling as defined by FIFRA;
  - b. that endangers humans, damages agricultural products, food, livestock, fish, or wildlife; or
  - c. that will cause unreasonable adverse effects on the environment.
- D. A person may not direct a pesticide onto property beyond the boundaries of the target site. A person may not apply a pesticide resulting in damage to adjacent property.
- E. A person may not directly apply a pesticide on a human by overspray or target site spray, except when:
  - a. the pesticide is intended for use on a human;
  - b. the pesticide application is for mosquito control operations;
  - c. the pesticide application is for control of gypsy moth, forest tent caterpillar, or other pest species, as determined by the commissioner, and the pesticide used is a biological agent; or
  - d. the pesticide application is for a public health risk, as determined by the commissioner of health, and the commissioner of health, in consultation with the commissioner of agriculture, determines that the application is warranted based on the commissioner's balancing of the public health risk with the risk that the pesticide application poses to the health of the general population, with special attention to the health of children.
- F. For pesticide applications under paragraph (c), clause (2), the following conditions apply:
  - a. no practicable and effective alternative method of control exists;
  - b. the pesticide is among the least toxic available for control of the target pest; and
  - c. notification to residents in the area to be treated is provided at least 24 hours before application through direct notification, posting daily on the treating organization's web site, if any, and by sending a broadcast e-mail to those persons who request notification of such, of those areas to be treated by adult mosquito control techniques during the next calendar day. For control operations

related to human disease, notice under this paragraph may be given less than 24 hours in advance.

G. For pesticide applications under paragraph (c), clauses (3) and (4), the following conditions apply:

- a. no practicable and effective alternative method of control exists;
- b. the pesticide is among the least toxic available for control of the target pest; and
- c. notification of residents in the area to be treated is provided by direct notification and through publication in a newspaper of general circulation within the affected area.

H. For purposes of this subdivision, "direct notification" may include mailings, public meetings, posted placards, neighborhood newsletters, or other means of contact designed to reach as many residents as possible. Public meetings held to meet this requirement for adult mosquito control, under paragraph (d), must be held within each city or town where the pesticide treatments are to be made, at a time and location that is convenient for residents of the area where the treatments will occur.

I. A person may not apply a pesticide in a manner so as to expose a worker in an immediately adjacent, open field.

J. Notwithstanding that the application is done in a manner consistent with the label or labeling, it is a violation of this chapter to directly apply a pesticide to a site where an application has not been

- a. requested, ordered, contracted for, or permitted; or
- b. performed pursuant to paragraph (c), clause (2), (3), or (4).

## **NEW JERSEY ADMINISTRATIVE CODE TITLE 7 CHAPTER 30; SUBCHAPTER 10**

### **SUBCHAPTER 10. PESTICIDE USE**

#### **7:30-10.2 Pesticide use and/or application**

(f) No person applying a pesticide shall permit drift or other movement of the pesticide to infringe on a non-target site, under circumstances where such infringement should be reasonably foreseeable.

#### **7:30-10.6 Aerial application of pesticides**

(a) All agricultural aircraft operations in New Jersey shall comply with those parts of F.A.R.-137 not covered in this section. In the case of conflict, a regulation of F.A.R.-137 shall take precedence over any of this section.

(b) The pilot of an agricultural aircraft shall, prior to any pesticide application, learn and confirm:

1. The boundaries and exact location of the target area(s); and
2. The identity of non-target areas and safety hazards located on or adjacent to the target area.

(c) Spray and spreading equipment shall be thoroughly rinsed after each agricultural aircraft

operation, except when the next application will be made using the same pesticide or, if another pesticide is to be used, it is compatible with that previously in the equipment and will not result in illegal residues or significant risk of injury or damage when applied to the new target site.

(d) During pesticide application, the flow and mixture of the pesticide(s) shall be uniform and applied with spray or spreading equipment suited for the pesticide(s) used. Application equipment shall be properly calibrated, according to the manufacturers' specification for the equipment utilized, for the specific type of pesticide application being performed and proof of this proper calibration shall be maintained by the aerial pesticide applicator business and be provided, upon request, to the Department.

(e) For interpretation of (d) above, participation of the individual aircraft in the Operation SAFE program, or its equivalent, as determined by the Department, shall presume proper equipment calibration; providing, the type of application(s) for which calibrated remains the same and the equipment set-up is not modified from that determined to be the most efficient under Operation SAFE, or its equivalent, as determined by the Department.

(f) Participation of each aerial pesticide applicator business in the Operation SAFE program, or its equivalent, as determined by the Department, shall be mandatory; providing, the program addresses the type of application to be performed and providing the program is offered within New Jersey and for a sufficient time period to allow this participation.

(g) Aircraft of the exact type and conformation, including, but not limited to, the application equipment utilized, shall also be considered to be properly calibrated if set-up to the specification determined from Operation SAFE, or its equivalent, as determined by the Department, to be the most efficient for that type aircraft; provided, this extension provision shall only apply to aircraft owned and operated by the aerial pesticide applicator business that has calibrated at least one of each type of aircraft under Operation SAFE or its equivalent, as determined by the Department.

(h) The Department may require full participation of all aerial application aircraft if experience in working with the Operation SAFE program, or its equivalent, as determined by the Department, shows the need, as determined by the Department, to require the participation of each aircraft regardless of sameness of conformation.

(i) All aerial spray or spreading equipment shall be free of leaks and shall have a positive shutoff system to prevent leaking and dissemination of pesticide on any non-target areas over which the flight is made.

(j) The shape of the tank or hopper of the spray or spreading equipment shall be such as to allow the complete drainage during flight and on the ground.

(k) Any emergency or accidental release of pesticide(s) from the aerial application or auxiliary equipment shall be subject to the reporting provisions of N.J.A.C. 7:30-9.17.

(l) All pesticides applied aurally as liquids, in liquid carriers, or as dusts shall be released within 15

feet above the target, except for applications to forests and/or trees, such application height shall be within 50 feet above the target, and except where obstructions in or adjacent to the target would endanger the safety of the pilot while applying pesticides at that altitude.

(m) All pesticides applied aurally as dry granules or pellets shall be released within 40 feet above the target, except where obstructions in or adjacent to the target would endanger the safety of the pilot while applying pesticides at that altitude.

(n) Aerial pesticide application for non-agricultural purposes shall be performed on a target site less than three contiguous acres in size, only in accordance with (o) below.

(o) Aerial pesticide application for non-agricultural purposes may be performed on application sites of

less than three acres provided the application site is part of a larger property or contiguous properties, which together make up three or more acres, and for which the owner's or owners' consent has been obtained. Consent may be verbal except when an occupied dwelling is within 100 feet of the target spray block. If such an occupied dwelling is within 100 feet of the target spray block, consent shall be in writing.

1. The written consent agreement shall include at a minimum:

- i. The date of agreement;
- ii. The location or designation of the consenting owner's property; and
- iii. The signature of the owner of the consenting owner's property.

2. Consent shall remain valid until withdrawn.

3. Any consenting owner may withdraw consent by notifying, in writing, the party who requested the consent. Consent may be withdrawn at the end of the calendar year, or may be withdrawn at any time following a pesticide misapplication involving the consenting owner's property, cited under this chapter. Upon such notification, the previous consent shall be invalidated.

4. Copies of all written consent agreements shall be maintained by the aerial pesticide applicator or applicator business for three years.

5. The written consent agreements shall be immediately provided to the Department, upon request.

(p) Aerial pesticide application to an agricultural commodity may be performed on any size field; providing, the field being sprayed is part of a larger property of three or more acres wholly owned or controlled by the person contracting for the application.

(q) No pesticide shall be applied by aircraft within 300 feet horizontally of the premises of schools, hospitals, nursing homes, houses of religious worship, or any building, other than a private residence, which is used for business or social activities, if either the premise or the building is occupied by people, except:

1. Pesticide application within 100 feet of a building used for an agricultural business shall be allowed; providing only a general use pesticide is applied and warning is given prior to application so that doors and/or windows on the building are closed and the occupants thereof allowed time to vacate the building.

(r) No pesticide shall be directly sprayed by aircraft on the right-of-way of a public road, except when the right-of-way is included as the target site.

(s) No pesticide shall be deposited by aircraft within 100 feet of any private residence unless the aerial pesticide applicator and/or applicator business has written consent of an inhabitant of said private residence of legal age. The aerial applicator or applicator business may obtain the written consent directly, or the party who is contracting for the services of an aerial applicator business may obtain the written consent and forward it to the aerial applicator or applicator business for record keeping purposes. The consent agreement shall include:

- 1. The date of agreement;
- 2. The time period for which the consent is valid;
- 3. The location or designation of the private residence; and



4. The signature of the consenting inhabitant of the private residence.

i. Any consenting inhabitant may withdraw consent by notifying, in writing, the party which requested the consent. Consent may be withdrawn at the end of the calendar year or at any time following a pesticide misapplication involving the consenting inhabitant's property, cited under this chapter. Upon such notification, the previous consent shall be invalidated.

ii. Copies of all consent agreements shall be maintained by the aerial pesticide applicator and/or applicator business for three years; and

iii. Such copies shall be immediately provided, upon request, to the Department.

(t) No person may aerially apply any broad spectrum pesticide for non-agricultural purposes except for the following:

1. Pest control where the Department determines, with recommendations from Rutgers University, that no practical alternative is available.

i. If the Department determines that Rutgers University is unable to provide such recommendations, the Department may seek other expert advice as necessary.

2. Pest control where it can be shown that the pest has reached a stage of development, or where population pressure is such, that any non-broad spectrum pesticide is ineffective;

3. Environmental, health, or agricultural emergencies, as defined below:

i. "Agricultural emergency" for the purposes of this section means an occurrence of any pest, whether through population growth beyond economic injury levels, or through introduction of a foreign or exotic pest, which presents a significant risk of harm or injury to any agricultural commodity, as determined by the New Jersey Department of Agriculture and/or the United States Department of Agriculture (USDA) in concurrence with the Department.

ii. "Environmental emergency" for the purposes of this section means the occurrence of any pest which presents a significant risk of harm or injury to the environment, including, but not limited to, exotic or foreign pests which may need preventive quarantine measures to avert or prevent that risk, as determined by the Department in concurrence with Rutgers University, and/or the New Jersey Department of Health and Senior Services.

iii. "Health emergency" for the purposes of this section means the occurrence of any pest which presents a significant risk of harm or injury to the public health as determined by the New Jersey Department of Health and Senior Services in concurrence with the Department; and

4. Experimental work pursuant to N.J.A.C. 7:30-2.3.

(u) Where it has been determined that a situation described in (t)1 or 2 exists, then the applicator or applicator business shall petition the Department at least two working days prior to the proposed application for approval to use a broad spectrum pesticide.

1. Once the Department has confirmed that a situation described in (t)1 exists, then no further petition shall be needed to use broad spectrum pesticides aerially, until the following calendar year, or until a practical alternative becomes available earlier than the end of the calendar year.

2. Situations such as those described in (t)2 above shall be reviewed by the Department on a case by

case basis, unless it can be determined that the pest population or development has resulted in a situation which is more general throughout larger areas of the state. Should this occur, the Department shall announce the situation and any limitations, geographic or otherwise, to the aerial use of broad spectrum pesticides.

(v) If it can be shown that an emergency application must take place without delay, the applicator or applicator business shall inform the Department of the application and provide justification for the application satisfactory to the Department no later than one working day after the application takes place.

(w) Where an application takes place pursuant to (t) above, and compliance with community or areawide notification requirements pursuant to N.J.A.C. 7:30-9.10 is not possible due to the timing of the application, the applicator shall request a waiver from the provisions of N.J.A.C. 7:30-9.10, pursuant to N.J.A.C. 7:30-9.10(c).

(x) No person shall apply any pesticide by aerial application equipment, unless the pesticide is specifically labeled for aerial application.

(y) No person shall be exempt from any of the provisions of this section except under these conditions:

1. During an emergency proclaimed by the Commissioner, specific aerial applicators may be exempted from all, or from specific regulations as deemed necessary by the Department to handle the emergency situation.
2. Any State, Federal, or public agency or aerial applicator under contractual agreement with such an agency, when conducting a pest control operation, shall be exempted from (l) through (o) and (q) through (s) above.
3. The provisions of (s) above shall not apply to any private residence that is occupied by the person contracting to have the spray performed and which is located on a property which includes the target site.

## **NORTH CAROLINA 2 NCAC 9L.1000---AERIAL APPLICATION OF PESTICIDES**

### **02 NCAC 09L .1001 DEFINITIONS**

All specific words or terms used in this Section shall have the same definitions as shown in the North Carolina Pesticide Law of 1971, G.S. 143-460, or unless the context otherwise requires, other definitions shall be:

- B. Agricultural Aircraft Operation. The operation of an aircraft for the purpose of dispensing any pesticide directly affecting agriculture, horticulture, forest preservation, or for any other pest control operation;
- C. Adverse Effect. Personal injury, damage to personal property, damage to real property, damage to the environment or any combination of these;
- D. Aircraft. A weight-carrying structure for navigation of the air that is supported either by its own buoyancy or by the dynamic action of the air against its surfaces; This shall include either fixed-wing or rotary-wing aircraft;
- E. Congested Areas. The same meaning as described in Federal Aviation Regulations (F.A.R.), Part 137;
- F. Contractor. Any person who owns or manages an aerial application business which is engaged in the custom application of pesticides;
- G. Custom Application. Any application of pesticides by aircraft for which service a payment is made;

- H. Drift. The airborne movement of pesticides resulting from the application of pesticides such as to carry the pesticides beyond the target area;
- I. Emergency. An occurrence which can impair public health, safety or result in injury, damage, or loss of life which calls for immediate action; An emergency may be minor or of such magnitude as to create a disaster;
- J. Environment. Water, air, land and all plants and man and other animals living therein and the interrelationships which exist among these;
- K. F.A.R.-137. Federal Aviation Regulations Volume VII, Part 137, as amended through September 10, 1980, relating to agricultural aircraft operations;
- L. Pilot. The person in control of the aircraft during the application of a pesticide;
- M. Registered Apiary--an apiary registered with the North Carolina Department of Agriculture;
- N. Respirator. A respirator or mask of a type that has been tested by the National Institute of Occupational Safety and Health and found to be satisfactory for protection against the particular pesticide being used;
- O. Spray Equipment. The equipment used for spraying liquid mixtures of pesticides in an agricultural aircraft operation;
- P. Target Area. Intended site of pesticide application;
- Q. Toxicity Category I Pesticides. Any pesticide products which are required to display the signal word "Danger" prominently on the label.

## **02 NCAC 09L .1002      GENERAL REQUIREMENTS**

(a) All agricultural aircraft operations in North Carolina shall comply with the Federal Occupational Safety and Health Act of 1971 (OSHA), the North Carolina Occupational Safety and Health Law, all regulations promulgated thereunder and the Federal Aviation Regulations part 137. In any case of conflict, a provision of the aforementioned authorities takes precedence over any of these Rules.

(b) Each aerial application business shall have a licensed contractor. The contractor shall be responsible for the compliance of the business with the North Carolina Pesticide Law of 1971 and all regulations promulgated thereunder except where the responsibility is specifically designated to another person(s) by these Rules.

(c) All agricultural aircraft operations (pilot or contractor) shall keep a written record to be completed within 72 hours after each application. This requirement must be fulfilled sooner if requested by an employee of the Pesticide Section for the purposes of a pesticide incident investigation. The record shall show the following:

- (1) name of contractor;
- (2) name and address of the person for whom the pesticide was applied;
- (3) identification of farm or land sites treated with pesticide(s);
- (4) name of crop which was treated;
- (5) total number of acres treated;

- (6) the year, month, day, and approximate time the pesticide was applied;
- (7) the brand name of the pesticide(s) and EPA registration number;
- (8) amount of formulated product or active material applied per acre (must specify);
- (9) total gallons or pounds per acre of the final tank mix applied per acre;
- (10) name of pilot;
- (11) signature of person completing this record.

(d) The pilot shall, prior to application, learn and confirm:

- (1) the boundaries and exact location of the target area(s),
- (2) the identity of nontarget areas and safety hazards located on or adjacent to the target areas.

(e) Spray and spreading equipment shall be thoroughly rinsed after each agricultural aircraft operation except when the next agricultural aircraft operation will be made using the same pesticide, or if another pesticide, one which by its manufacturer's recommendations is compatible with that previously in the equipment, and will not result in any adverse effects or illegal residues. Rinsing shall be conducted in an area where an environmental hazard will not be created by the drainage or disposal of waste materials and conducted with methods which will not create an environmental or human hazard.

(f) During application, the flow and mixture of the pesticide(s) shall be uniform. Pilots and contractors shall utilize equipment which will maintain a uniform mixture and flow during application.

(g) Pilots and contractors shall use and operate, in any agricultural aircraft operation, aircraft equipped with spray or spreading equipment suited, according to its manufacturer's recommendations for the pesticide(s) to be applied. All aerial spray or spreading equipment shall be free of leaks and shall have a positive shutoff system to prevent leaking and dissemination of pesticides on any nontarget areas over which the flight is made. Such equipment shall not allow spillage, dripping and backflow or create a hazard from vapors or drift.

(h) The loading area shall be kept reasonably free of pesticide contamination.

(i) No pesticide(s) shall be applied by an aerial applicator while any persons other than those assisting in the application are in the target area.

(j) The shape of the tank or hopper of the spray or spreading equipment shall be such as to allow complete drainage during flight and on ground.

(k) The contractor or pilot shall immediately notify the Secretary of the Board, or designated alternate, of any emergency or accidental release of pesticide(s) from the application or auxiliary equipment. They shall provide the following information:

- (1) the name of the pilot,
- (2) the contractor involved,
- (3) the name of the property owner or operator,
- (4) the location of the incident,

- (5) the name of the pesticide,
- (6) the estimated amount of pesticide involved,
- (7) the estimated size of the area that received the spill,
- (8) the description of what is located within 300 feet from the edge of the spill in all directions,
- (9) the number of humans or animals known to have been contaminated,
- (10) the weather conditions at the site of the emergency or accidental release of pesticide(s).

## **02 NCAC 09L .1003      DRIFT CONTROL**

No person shall apply a pesticide(s) aerially under such conditions that drift from pesticide(s) particles or vapors results in adverse effect. As a minimum, the following precautions shall be taken:

- (1) Fixed nozzles shall be spaced on the boom to afford a uniform spray pattern at the height the aircraft will be flown.
- (2) All pesticides applied aerially as liquids, in liquid carriers, or as dusts shall be released within 15 feet above the canopy of the target, except where obstructions in or adjacent to the target would endanger the safety of the pilot while applying pesticides at that altitude.
- (3) All pesticides applied aerially as dry granules or pellets shall be released within 40 feet above the canopy of the target, except where obstructions in or adjacent to the target would endanger the safety of the pilot while applying pesticides at that altitude.
- (4) All applications of the following liquid pesticide formulations shall be made using a D4 or larger disk with a 46 whirlplate with the discharge directed with the airstream or not more than 10 degrees below the horizontal, and operated at a maximum pressure of 40 pounds per square inch, or a system producing a droplet size range not smaller than the above system, except for rotary-wing aircraft flying at speeds of 60 mph or less, in which case the nozzles may be directed downward:
  - (a) phenoxy herbicides,
  - (b) paraquat,
  - (c) picloram (Tordon),
  - (d) dicamba.
- (5) Restricted use pesticides other than those specified in (4) of this Rule shall be applied as follows:
  - (a) use a D4 or larger disk with a 45 whirlplate with the discharge directed with the airstream or not more than 10 degrees below the horizontal, and operated at a maximum pressure of 40 pounds per square inch; or
  - (b) a system producing a droplet size range not smaller than the above system, except for rotary-wing aircraft flying at speeds of 60 mph or less, in which case the nozzles may be directed downward; or

- (c) use a boom with outside nozzles placed no closer to the wingtips than 12-1/2 percent of the total wingspan distance. If the length of the boom of the spraying equipment exceeds the nozzle span, a bleeder line shall be provided from the end of the boom to the last nozzle on the boom.

## **02 NCAC 09L .1005 RESTRICTED AREAS**

- (a) No pesticide shall be applied by aircraft within the limits of any congested area except when permission is granted under F.A.R.-137.
- (b) No pesticide shall be deposited by aircraft within 300 feet of the premises of schools, hospitals, nursing homes, churches, or any building (other than a residence) which is used for business or social activities if either the premises or the building is occupied by people.
- (c) No pesticide shall be deposited by aircraft on the right-of-way of a public road or within 25 feet of the road, whichever is the greater distance.
- (d) No pesticide labeled toxic or harmful to aquatic life shall be deposited in or near any body of water in such a manner as to be hazardous to aquatic life unless such aquatic life is the intended target of the pesticide.
- (e) No pesticide shall be deposited within 100 feet of any residence.
- (f) No pesticide shall be deposited onto any nontarget area in such a manner that it is more likely than not that adverse effect will occur.

## **WISCONSIN ATCP 29**

### **SUBCHAPTER I — DEFINITIONS AND GENERAL PROVISIONS**

ATCP 29.01 Definitions. In this chapter:

(29) "Pesticide drift" means pesticide deposited outside a target application site as a result of pesticide movement caused by air currents or diffusion. *ATCP 29.01 - ANNOT. Note: See s. ATCP 29.50 (2), which prohibits any person from using a pesticide in a manner that results in significant pesticide drift.*

(30) "Pesticide overspray" means pesticide deposited outside a target application site as a result of an applicator's failure to control the direct flow or application of pesticide from the application equipment so as to confine it to the target application site. *ATCP 29.01 - ANNOT. Note: See s. ATCP 29.50 (2), which prohibits any person from using a pesticide in a manner that results in pesticide overspray.*

### **ATCP 29.50(2)**

#### **(2) OVERSPRAY AND DRIFT.**

- (a) No person may use or direct the use of a pesticide in a manner that results in pesticide overspray or significant pesticide drift. This paragraph does not apply to mosquito control applications, made by or under the direction of a governmental entity for public health purposes, that use proper mosquito control application methods. *ATCP 29.50 - ANNOT. Note: See definitions of "pesticide drift" and "pesticide overspray" under ss. ATCP 29.01 (29) and (30).*
- (b) The application of pesticide outside the target application site is presumed to be the result of pesticide drift unless there is evidence of pesticide overspray.

(c) Pesticide drift is significant, under par. (a), if there is credible evidence that it has moved outside the target application site in any of the following amounts:

1. 1. Amounts that cause actual harm to persons, property or the environment.

ATCP 29.50(2)(c)2. 2. Amounts that could potentially harm persons, property or the environment under any reasonably foreseeable circumstances, regardless of whether an actual exposure or harm has occurred.

ATCP 29.50(2)(c)3. 3. Amounts that are readily visible.